



# Search Report

EIC 2800

STIC Database Tracking Number: 251174

To: JOSE DEES  
Location: JEF-8D59  
Art Unit: 2800  
Tuesday, February 12, 2008  
  
Case Serial Number: 10/797702

From: DIANE JACKSON  
Location: EIC2800  
JEF-4B68 / JEF-4B68  
Phone: (571)272-3260  
  
[diane.jackson@uspto.gov](mailto:diane.jackson@uspto.gov)

## Search Notes

Attached are litigation search results in Lexis Nexis, and CourtLink and Questel-Orbit.

No Litigation was found for Serial Number 10/797702 .

If you have any questions, please feel free to contact me.

Thanks,

Diane

251174

Jackson, Diane

FEB 12

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**From:** Dees, Jose  
**Sent:** Monday, February 11, 2008 2:13 PM  
**To:** STIC-EIC2800  
**Cc:** Patidar, Jay  
**Subject:** RE: reissue 10/797702.

Please do a litigation search for patent no. 6,559,637.

Thanks, J Dees

*Jose' G. Dees*  
Jose' G. Dees  
T-QAS, TC 2800  
571-272-1569

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**From:** Patidar, Jay  
**Sent:** Monday, February 11, 2008 12:45 PM  
**To:** Dees, Jose  
**Subject:** RE: reissue 10/797702.

How do you order a litigation search?

---

**From:** Dees, Jose  
**Sent:** Friday, February 08, 2008 1:07 PM  
**To:** Patidar, Jay  
**Cc:** Assouad, Patrick; Pellegrino, Rachel (Chugach); Dunn, Drew  
**Subject:** reissue 10/797702.

Please make the following corrections to reissue 10/797702.

1. The amendment of 8/27/07 is improper. The claims are improperly amended and claims 15 and 22 were cancelled in the amendment of 9/7/06. The claims must show amendments made in relation to the patented claims.

See the reissue guide. d) Any change to the text of a claim (original or new) must be presented as an entire numbered claim. All subject matter being added to an original patent claim must be underlined. All subject matter being deleted from an original patent claim must be placed between brackets. 37 CFR 1.173(b) (2) and (d). Subject matter being added to a new claim requires rewriting (and underlining) of the entire new claim.

A claim canceled by amendment (deleted in its entirety) may be reinstated only by a subsequent amendment presenting the claim as a new claim with a new claim number. 37 CFR 1.121(c)(5). See MPEP § \*>714<.

2. Please order a litigation search for patent no. 6,559,637.

Thanks, J Dees

The gray folder is being returned to you.

*Jose' G. Dees*

Jose' G. Dees  
T-QAS, TC 2800  
571-272-1569

**Application Number Information**Application Number: **10/797702** AssignmentsFiling or 371(c) Date: **03/10/2004** eDanEffective Date: **03/10/2004**Application Received: **03/10/2004**

Patent Number:

Issue Date: **00/00/0000**Date of Abandonment: **00/00/0000**Attorney Docket Number: **056205.49851RE**Status: **90 /ALLOWED -- NOTICE OF ALLOWANCE NOT YET MAILED**Confirmation Number: **4708**Examiner Number: **71794 / PATIDAR, JAY**Group Art Unit: **2862**IFW MadrasClass/Subclass: **324/207.200**Lost Case: **NO**

Interference Number:

Unmatched Petition: **NO**L&R Code: Secrecy Code: **1**Third Level Review: **NO**Secrecy Order: **NO**Status Date: **11/26/2007**Oral Hearing: **NO**Title of Invention: **NON-CONTACT ROTATIONAL POSITION SENSOR AND THROTTLE VALVE ASSEMBLY INCLUDING NON-CONTACT ROTATIONAL POSITION SENSOR**

Bar Code	PALM Location	Location Date	Charge to Loc	Charge to Name	Employee Name	Location
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Appln  
Info[Contents](#)[Petition Info](#)[Atty/Agent Info](#)[Continuity/Reexam](#)[Foreign Data](#)[Inventors](#)

Search Another: Application #   or Patent#    
 PCT /  /   or PG PUBS #    
 Attorney Docket #    
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**Application Number Information**

Application Number: **09/820327** Assignments  
 Filing or 371(c) Date: **03/29/2001** eDan  
 Effective Date: **03/29/2001**  
 Application Received: **03/29/2001**  
 Pat. Num./Pub. Num: **6559637/20020089324**  
 Issue Date: **05/06/2003**  
 Date of Abandonment: **00/00/0000**  
 Attorney Docket Number: **381KA/49851**  
 Status: **150 /PATENTED CASE**  
 Confirmation Number: **3099**

Examiner Number: **61623 / SNOW, WALTER**Group Art Unit: **2862**Class/Subclass: **324/207.200**Lost Case: **NO**

Interference Number:

Unmatched Petition: **NO**L&R Code: Secrecy Code: **1**Third Level Review: **NO**Secrecy Order: **NO**Status Date: **04/17/2003**Oral Hearing: **NO**

**Title of Invention: NON-CONTACT ROTATIONAL POSITION SENSOR AND THROTTLE VALVE ASSEMBLY INCLUDING NON-CONTACT ROTATIONAL POSITION SENSOR**

Bar Code	PALM Location	Location Date	Charge to Loc	Charge to Name	Employee Name	Location
<b>09820327</b>	<b>28M1</b>	<b>03/14/2007</b>	<b>28U3</b>	<b>DEES, JOSE</b>	<b>2800,OUTGOING MAIL</b>	<b>REM/00/B 89</b>

<b>Appln Info</b>	<a href="#">Contents</a>	<a href="#">Petition Info</a>	<a href="#">Atty/Agent Info</a>	<a href="#">Continuity/Reexam</a>	<a href="#">Foreign Data</a>	<a href="#">Inventors</a>
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**Search Another: Application #**      **or Patent#**    
**PCT /**  **/**      **or PG PUBS #**    
**Attorney Docket #**    
**Bar Code #**

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[http://EXPQWEB1:8001/cgi-bin/expo/GenInfo/snquery.pl?APPL\\_ID=09820327](http://EXPQWEB1:8001/cgi-bin/expo/GenInfo/snquery.pl?APPL_ID=09820327)

# Continuity/Reexam Information for 10/797702

**Parent Data****10797702, filed 03/10/2004****is a reissue of 09820327, filed 03/29/2001****Child Data****No Child Data**

Appln Info	Contents	Petition Info	Atty/Agent Info	Continuity/Reexam	Foreign Data	Inventors
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Search Another: Application #   or Patent#    
PCT /  /   or PG PUBS #    
Attorney Docket #    
Bar Code #

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Diane

Jackson!

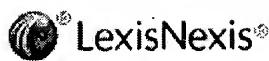
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## Patent Search 6559637 2/12/2008

No cases found.

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(Charges for search still apply)

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820327 (09) 6559637 May 6, 2003

## UNITED STATES PATENT AND TRADEMARK OFFICE GRANTED PATENT

6559637

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May 6, 2003

Non-contact rotational position sensor and throttle valve assembly including non-contact rotational position sensor

**REISSUE:** March 10, 2004 - Reissue Application filed Ex. Gp.: 2834; Re. S.N. 10/797,702 (O.G. October 19, 2004)

**INVENTOR:** Miyata, Kenji - Hitachinaka, Japan (JP); Shimada, Satoshi - Hitachi, Japan (JP); Tajima, Fumio - Ibaraki-ken, Japan (JP); Usui, Toshifumi - Hitachinaka, Japan (JP); Kubota, Masanori - Hitachinaka, Japan (JP)

**APPL-NO:** 820327 (09)

**FILED-DATE:** March 29, 2001

**GRANTED-DATE:** May 6, 2003

**PRIORITY:** January 10, 2001 - 2001002045, Japan (JP)

**ASSIGNEE-PRE-ISSUE:** July 12, 2001 - ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS)., HITACHI, LTD. 6, KANDA SURUGADAI 4-CHOME, CHIYODA-KUTOKYO, (1), HITACHI CAR ENGINEERING CO., LTD. 2477, TAKABA HITACHINAKA-SHIIBARAKI-KEN, (1), Reel and Frame Number: 011981/0847

**ASSIGNEE-AT-ISSUE:** Hitachi, Ltd., Tokyo, Japan (JP), Foreign company or corporation (03) Hitachi Car Engineering Co., Ltd., Hitachinaka, Japan (JP), Foreign company or corporation (03)

**LEGAL-REP:** Crowell & Moring LLP

**PUB-TYPE:** May 6, 2003 - Utility Patent having a previously published pre-grant publication (B2)

**PUB-COUNTRY:** United States (US)

**REL-DATA:**

Prior Publication 20020089324, July 11, 2002, PENDING

**US-MAIN-CL:** 324#207.2

## Extended Family Search Results

### US6559637/PN Results : 5

#### PATENT FAMILY

#	Patent No.	Kind	Date	Applic.No.	Date
1)	DE60131245	D1	20071220	2001DE-6031245	20010330
2)	EP1223409	A2	20020717	2001EP-0107716	20010330
	EP1223409	A3	20031119		
	EP1223409	B1	20071107		
3)	JP2002206913	A	20020726	2001JP-0002045	20010110
	JP3757118	B2	20060322		
4)	KR20020060551	A	20020718	2001KR-0016741	20010330
5)	US20020089324	A1	20020711	2001US-0820327	20010329
	US6559637	B2	20030506		

#### Priority :

2001JP-0002045 20010110




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#### 1/5 PLUSPAT - ©QUESTEL-ORBIT

PN	-	DE60131245 D1 20071220 [DE60131245]
STG	-	(D1) Granted EP number in bulletin
OTI	-	(D1) Drosselklappeneinheit mit einer magnetisch abgeschirmten Vorrichtung für kontaktlose Positionsmessung
PA	-	(D1) HITACHI LTD (JP); HITACHI CAR ENG CO LTD (JP)
IN	-	(D1) MIYATA KENJI (JP); SHIMADA SATOSHI (JP); TAJIMA FUMIO (JP); USUI TOSHIKUMI (JP); KUBOTA MASANORI (JP)
IC	-	(D1) G01B-007/00 G01B-007/30 G01D-005/12 G01D-005/14 G01D-005/16
AP	-	DE60131245 20010330 [2001DE-6031245]
PR	-	JP2001002045 20010110 [2001JP-0002045]
ICAA	-	G01B-007/30 [2006-01 A F I R M JP]; G01D-005/14 [2006-01 A F I B H EP]; G01B-007/00 [2006-01 A L I R M JP]; G01D-005/12 [2006-01 A L I R M JP]; G01D-005/16 [2006-01 A L I B H EP]
ICCA	-	G01B-007/30 [2006 C F I R M JP]; G01D-005/12 [2006 C F I B H EP]; G01B-007/00 [2006 C L I R M JP]
EC	-	G01D-005/14B1
DT	-	Corresponding document
UP	-	2007-51

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#### 1/1 LEGALI - ©EPO

PN	-	EP1223409 A2 20020717 [EP1223409]EP1223409 A3 20031119 [EP1223409]EP1223409 B1 20071107 [EP1223409]
AP	-	EP01107716 20010330 [2001EP-0107716]

## ACT

20020717 EP/AX-A [+]

EXTENSION OF THE EUROPEAN PATENT TO  
ERSTRECKUNG DES EUROPÄISCHEN PATENTS AUF  
AL;LT;LV;MK;RO;SI

20020717 EP/AK-A [+]

DESIGNATED CONTRACTING STATES:

BENANNTE VERTRAGSSTAATEN

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

20031119 EP/AK-A [+]

DESIGNATED CONTRACTING STATES:

BENANNTE VERTRAGSSTAATEN

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

20031119 EP/AX-A [+]

EXTENSION OF THE EUROPEAN PATENT TO  
ERSTRECKUNG DES EUROPÄISCHEN PATENTS AUF  
AL LT LV MK RO SI

20031119 EP/RIC1-A

CLASSIFICATION (CORRECTION)

KLASSIFIKATION (KORR.)

7 G01D-005/14 A

20031119 EP/RIC1-A

CLASSIFICATION (CORRECTION)

KLASSIFIKATION (KORR.)

7 G01D-005/16 B

20040512 EP/17P-A [+]

REQUEST FOR EXAMINATION FILED

PRUEFUNGSANTRAG GESTELLT

EFFECTIVE DATE: 20040310

20040623 EP/17Q-A [+]

FIRST EXAMINATION REPORT

ERSTER PRUEFUNGSBESCHEID

EFFECTIVE DATE: 20040511

20040811 EP/AKX-A [+]

PAYMENT OF DESIGNATION FEES

ZAHLUNG VON BENENNUNGSGEBUEHREN

DE FR GB IT

20070425 EP/RTI1-A

TITLE (CORRECTION)

TITEL (KORR.)

THROTTLE VALVE ASSEMBLY INCLUDING MAGNETICALLY SHIELDED NON-  
CONTACT POSITION SENSOR

20071003 EP/RIN1-A

INVENTOR (CORRECTION)

ERFINDER (KORR.)

MIYATA, KENJI,H

20071003 EP/RIN1-A  
INVENTOR (CORRECTION)  
ERFINDER (KORR.)  
SHIMADA, SATOSHI,H

20071003 EP/RIN1-A  
INVENTOR (CORRECTION)  
ERFINDER (KORR.)  
TAJIMA, FUMIO,H

20071003 EP/RIN1-A  
INVENTOR (CORRECTION)  
ERFINDER (KORR.)  
USUI, TOSHIKUMI,H

20071003 EP/RIN1-A  
INVENTOR (CORRECTION)  
ERFINDER (KORR.)  
KUBOTA, MASANORI

20071017 EP/RAP1-A  
APPLICANT REASSIGNMENT (CORRECTION)  
ANMELDER UEBERTRAGUNG (KORR.)  
OWNER: HITACHI, LTD.

20071017 EP/RAP1-A  
APPLICANT REASSIGNMENT (CORRECTION)  
ANMELDER UEBERTRAGUNG (KORR.)  
OWNER: HITACHI CAR ENGINEERING CO., LTD.

20071107 EP/AK-A [+]  
DESIGNATED CONTRACTING STATES:  
BENANNTE VERTRAGSSTAATEN  
DE FR GB IT

20071107 EP/REG-A; GB/FG4D [+]  
GB: EUROPEAN PATENT GRANTED  
<GB>

20071220 EP/REF-A  
CORRESPONDS TO:  
ENTSPRICHT  
(DE 60131245 20071220 [DE60131245])

UP - 2007-51



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2/5 PLUSPAT - ©QUESTEL-ORBIT - image

PN - EP1223409 A2 20020717 [EP1223409]

STG - (A2) Pub. Of applic. Without search report

TI - (A2) Throttle valve assembly including magnetically shielded non-contact position sensor

OTI - (A2) Drosselklappeneinheit mit einer magnetisch abgeschirmten Vorrichtung für kontaktlose

Positionsmessung  
 (A2) Papillon de gaz avec dispositif de mesure de position sans contact avec blindage magnétique

**PA** - (A2) HITACHI LTD (JP); HITACHI CAR ENG CO LTD (JP)

**PA0** - Hitachi, Ltd.; 6, Kanda Surugadai 4-chome; Chiyoda-ku, Tokyo 101-8010 (JP)  
 Hitachi Car Engineering Co., Ltd.; 2477, Takaba; Hitachinaka-shi, Ibaraki 312-0062 (JP)

**IN** - (A2) MIYATA KENJI (JP); SHIMADA SATOSHI (JP); TAJIMA FUMIO (JP); USUI TOSHIKUMI (JP); KUBOTA MASANORI (JP)

**IC** - (A2) G01D-005/14 G01D-005/16

**PN2** - EP1223409 A3 20031119 [EP1223409]

**STG2** - (A3) Publi. Of search report

**TI2** - (A3) Non-contact position sensor

**OTI2** - (A3) Vorrichtung für kontaktlose Positionsmessung  
 (A3) Dispositif de mesure de position sans contact

**PA2** - (A3) HITACHI LTD (JP); HITACHI CAR ENG CO LTD (JP)

**IN2** - (A3) MIYATA KENJI (JP); SHIMADA SATOSHI (JP); TAJIMA FUMIO (JP); USUI TOSHIKUMI (JP); KUBOTA MASANORI (JP)

**IC2** - (A3) G01D-005/14 G01D-005/16

**PN3** - EP1223409 B1 20071107 [EP1223409]

**STG3** - (B1) Patent

**TI3** - (B1) Throttle valve assembly including magnetically shielded non-contact position sensor

**OTI3** - (B1) Drosselklappeneinheit mit einer magnetisch abgeschirmten Vorrichtung für kontaktlose Positionsmessung  
 (B1) Papillon de gaz avec dispositif de mesure de position sans contact avec blindage magnétique

**PA3** - (B1) HITACHI LTD (JP); HITACHI CAR ENG CO LTD (JP)

**IN3** - (B1) MIYATA KENJI (JP); SHIMADA SATOSHI (JP); TAJIMA FUMIO (JP); USUI TOSHIKUMI (JP); KUBOTA MASANORI (JP)

**IC3** - (B1) G01B-007/00 G01B-007/30 G01D-005/12 G01D-005/14 G01D-005/16

**LA** - ENGLISH (ENG)

**AP** - EP01107716 20010330 [2001EP-0107716]

**PR** - JP2001002045 20010110 [2001JP-0002045]

**ICAA** - G01B-007/30 [2006-01 A F I R M JP]; G01D-005/14 [2006-01 A F I B H EP]; G01B-007/00 [2006-01 A L I R M JP]; G01D-005/12 [2006-01 A L I R M JP]; G01D-005/16 [2006-01 A L I B H EP]

**ICCA** - G01B-007/30 [2006 C F I R M JP]; G01D-005/12 [2006 C F I B H EP]; G01B-007/00 [2006 C L I R M JP]

**EC** - G01D-005/14B1

**DS** - AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

**DT** - Basic

**UP** - 2002-29

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**PN** - EP1223409 A2 20020717 [EP1223409]EP1223409 A3 20031119 [EP1223409]EP1223409 B1 20071107 [EP1223409]

**AP** - EP01107716 20010330 [2001EP-0107716]

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PRUEFUNGSANTRAG GESTELLT

EFFECTIVE DATE: 20040310

20040623 EP/17Q-A [+]

FIRST EXAMINATION REPORT

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DE FR GB IT

20070425 EP/RTI1-A

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MIYATA, KENJI,H

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ERFINDER (KORR.)  
SHIMADA, SATOSHI,H

20071003 EP/RIN1-A  
INVENTOR (CORRECTION)  
ERFINDER (KORR.)  
TAJIMA, FUMIO,H

20071003 EP/RIN1-A  
INVENTOR (CORRECTION)  
ERFINDER (KORR.)  
USUI, TOSHIKUMI,H

20071003 EP/RIN1-A  
INVENTOR (CORRECTION)  
ERFINDER (KORR.)  
KUBOTA, MASANORI

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DE FR GB IT

20071107 EP/REG-A; GB/FG4D [+]  
GB: EUROPEAN PATENT GRANTED  
<GB>

20071220 EP/REF-A  
CORRESPONDS TO:  
ENTSPRICHT  
(DE 60131245 20071220 [DE60131245])

UP - 2007-51



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PN - JP2002206913 A 20020726 [JP2002206913]

STG - (A) Doc. Laid open to publ. Inspec.

TI - (A) NON-CONTACT TYPE ROTATION POSITION SENSOR AND THROTTLE VALVE  
ASSEMBLY HAVING THE SAME

**PA** - (A) HITACHI LTD; HITACHI CAR ENG CO LTD  
**PA0** - HITACHI LTD; HITACHI CAR ENG CO LTD  
**IN** - (A) MIYATA KENJI; SHIMADA SATOSHI; TAJIMA FUMIO; USUI TOSHIKUMI;  
 KUBOTA MASANORI  
**IC** - (A) G01B-007/30 G01D-005/12 G01D-005/14  
**PN2** - JP3757118 B2 20060322 [JP3757118]  
**STG2** - (B2) Grant. Pat. With A from 2500000 on  
**IC2** - (B2) G01B-007/00 G01B-007/30 G01D-005/12 G01D-005/14  
**AP** - JP2001002045 20010110 [2001JP-0002045]  
**PR** - JP2001002045 20010110 [2001JP-0002045]  
**ICAA** - G01B-007/30 [2006-01 A F I B H JP]; G01B-007/00 [2006-01 A L I R M JP]; G01D-005/12  
 [2006-01 A L I B H JP]; G01D-005/14 [2006-01 A L I B H JP]  
**ICCA** - G01B-007/30 [2006 C F I R M JP]; G01B-007/00 [2006 C L I R M JP]; G01D-005/12 [2006  
 C L I B H JP]  
**EC** - G01D-005/14B1.  
**FI** - G01B7/30 101B; G01D5/12 A; G01D5/14 H; G01B7/00 102M; G01B7/30 H  
**FTM** - 2F063 AA35; 2F063 BA06; 2F063 DA05; 2F063 DD03; 2F063 GA52; 2F063 KA01; 2F077  
 CC02; 2F077 JJ01; 2F077 JJ08; 2F077 JJ23; 2F077 VV01  
**DT** - Corresponding document  
**UP** - 2002-35




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 4/5 *PLUSPAT - ©QUESTEL-ORBIT*

**PN** - KR20020060551 A 20020718 [KR20020060551]  
**STG** - (A) Unexamined patent application  
**TI** - (A) NON-CONTACT TYPE ROTATION POSITION SENSOR AND THROTTLE VALVE  
 ASSEMBLY HAVING THE SAME  
**PA** - (A) HITACHI CAR ENG CO LTD; HITACHI LTD  
**PA0** - HITACHI CAR ENGINEERING CO., LTD.; HITACHI LTD.  
**IN** - (A) KUBOTA MASANORI; MIYATA KENJI; SHIMADA SATOSHI; TAJIMA FUMIO;  
 USUI TOSHIKUMI  
**IC** - (A) G01B-007/14  
**LA** - KOREAN (KOR)  
**AP** - KR20010016741 20010330 [2001KR-0016741]  
**PR** - JP2001002045 20010110 [2001JP-0002045]  
**ICAA** - G01B-007/30 [2006-01 A F I R M JP]; G01B-007/00 [2006-01 A L I R M JP]; G01D-005/12  
 [2006-01 A L I R M JP]; G01D-005/14 [2006-01 A - I R M EP]  
**ICCA** - G01B-007/30 [2006 C F I R M JP]; G01B-007/00 [2006 C L I R M JP]; G01D-005/12 [2006  
 C - I R M EP]  
**EC** - G01D-005/14B1  
**DT** - Corresponding document  
**UP** - 2006-51




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 5/5 *PLUSPAT - ©QUESTEL-ORBIT - image*

**PN** - US2002089324 A1 20020711 [US20020089324]  
**STG** - (A1) Utility Patent Application published on or after January 2, 2001

**TI** - (A1) Non-contact rotational position sensor and throttle valve assembly including non-contact rotational position sensor  
**PA** - (B2) HITACHI LTD (JP); HITACHI CAR ENG CO LTD (JP)  
**PA0** - Hitachi, Ltd., Tokyo [JP]  
 Hitachi Car Engineering Company, Ltd., Hitachinaka [JP]  
**IN** - (A1) MIYATA KENJI (JP); SHIMADA SATOSHI (JP); TAJIMA FUMIO (JP); USUI TOSHIFUMI (JP); KUBOTA MASANORI (JP)  
**IC** - (A1) G01B-007/14 G01B-007/30  
**PN2** - US6559637 B2 20030506 [US6559637]  
**STG2** - (B2) U.S. Patent (with pre-grant pub.) after Jan. 2, 2001  
**TI2** - (B2) Non-contact rotational position sensor and throttle valve assembly including non-contact rotational position sensor  
**PA2** - (B2) HITACHI LTD (JP); HITACHI CAR ENG CO LTD (JP)  
**IN2** - (B2) MIYATA KENJI (JP); SHIMADA SATOSHI (JP); TAJIMA FUMIO (JP); USUI TOSHIFUMI (JP); KUBOTA MASANORI (JP)  
**IC2** - (B2) G01B-007/14 H01L-043/06  
**AP** - US82032701 20010329 [2001US-0820327]  
**PR** - JP2001002045 20010110 [2001JP-0002045]  
**ICAA** - G01B-007/30 [2006-01 A F I R M JP]; G01B-007/00 [2006-01 A L I R M JP]; G01D-005/12 [2006-01 A L I R M JP]; G01D-005/14 [2006-01 A - I R M EP]  
**ICCA** - G01B-007/30 [2006 C F I R M JP]; G01B-007/00 [2006 C L I R M JP]; G01D-005/12 [2006 C - I R M EP]  
**EC** - G01D-005/14B1  
**PCL** - ORIGINAL (O) : 324207200; CROSS-REFERENCE (X) : 123406520 324207250  
**DT** - Corresponding document  
**UP** - 2002-29

## 1/1 LEGALI - ©EPO

**PN** - US2002089324 A1 20020711 [US20020089324]US6559637 B2 20030506 [US6559637]  
**AP** - US82032701 20010329 [2001US-0820327]  
**ACT** -  
 20010712 US/AS-A  
 ASSIGNMENT  
 OWNER: HITACHI, LTD. 6, KANDA SURUGADAI 4-CHOME, CHIYODA-  
 ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:MIYATA, KENJI;SHIMADA,  
 SATOSHI;TAJIMA, FUMIO;AND OTHERS;REEL/FRAME:011981/0847;SIGNING  
 DATES FROM 20010313 TO 20010319

20010712 US/AS-A  
 ASSIGNMENT  
 OWNER: HITACHI CAR ENGINEERING CO., LTD. 2477, TAKABA HIT  
 ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:MIYATA, KENJI;SHIMADA,  
 SATOSHI;TAJIMA, FUMIO;AND OTHERS;REEL/FRAME:011981/0847;SIGNING  
 DATES FROM 20010313 TO 20010319

20010712 US/AS-A  
 ASSIGNMENT  
 OWNER: HITACHI, LTD. 6, KANDA SURUGADAI 4-CHOME, CHIYODA-  
 ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:MIYATA,

KENJI/AR;REEL/FRAME:011981/0847;SIGNING DATES FROM 20010313 TO 20010319

20041019 US/RF-A  
REISSUE APPLICATION FILED  
EFFECTIVE DATE: 20040310

UP - 2006-03

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FAN - 20042801001606

PN - US2002089324 A1 20020711 [US20020089324]

STG: Utility Patent Application published on or after January 2, 2001

AP : 2001US-0820327 20010329

EP1223409 A2 20020717 [EP1223409]

STG: Pub. Of applic. Without search report

AP : 2001EP-0107716 20010330

KR20020060551 A 20020718 [KR20020060551]

STG: Unexamined patent application

AP : 2001KR-0016741 20010330

JP2002206913 A 20020726 [JP2002206913]

STG: Doc. Laid open to publ. Inspec.

AP : 2001JP-0002045 20010110

US6559637 B2 20030506 [US6559637]

STG: U.S. Patent (with pre-grant pub.) after Jan. 2, 2001

EP1223409 A3 20031119 [EP1223409]

STG: Publi. Of search report

JP3757118 B2 20060322 [JP3757118]

STG: Grant. Pat. With A from 2500000 on

EP1223409 B1 20071107 [EP1223409]

STG: Patent

DE60131245 D1 20071220 [DE60131245]

STG: Granted EP number in bulletin

AP : 2001DE-6031245 20010330

TI - Throttle valve assembly including magnetically shielded non-contact position sensor

PA - HITACHI CAR ENG CO LTD

HITACHI LTD

PA0 - Hitachi, Ltd.; 6, Kanda Surugadai 4-chome; Chiyoda-ku, Tokyo 101-8010 (JP)

Hitachi Car Engineering Co., Ltd.; 2477, Takaba; Hitachinaka-shi, Ibaraki 312-0062 (JP)

IN - MIYATA KENJI; SHIMADA SATOSHI; TAJIMA FUMIO; USUI TOSHIFUMI; KUBOTA MASANORI

PR - 2001JP-0002045 20010110

IC - G01B-007/00

G01B-007/14

G01B-007/30

G01D-005/12

G01D-005/14

G01D-005/16

H01L-043/06

ICAA - G01B-007/30 [2006-01 A F I R M JP]; G01D-005/14 [2006-01 A F I B H EP]; G01B-007/00 [2006-01 A L I R M JP]; G01D-005/12 [2006-01 A L I R M JP]; G01D-005/16 [2006-01 A L I B H EP]

ICCA - G01B-007/30 [2006 C F I R M JP]; G01D-005/12 [2006 C F I B H EP]; G01B-007/00 [2006 C L I R M JP]

EC - G01D-005/14B1

PCL - ORIGINAL (O) : 324207200; CROSS-REFERENCE (X) : 123406520 324207250

FI - G01B7/30 101B; G01D5/12 A; G01D5/14 H; G01B7/00 102M; G01B7/30 H

**FTM** - 2F063 AA35; 2F063 BA06; 2F063 DA05; 2F063 DD03; 2F063 GA52; 2F063 KA01; 2F077 CC02; 2F077 JJ01; 2F077 JJ08; 2F077 JJ23; 2F077 VV01

**DS** - (EP1223409)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

**CT** - (EP1223409)  
Cited in the search report  
-EP0798541(A1)(Cat. X)[EP-798541]  
-US5164668(A)(Cat. X)[US5164668]  
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-WO9743602(A1)(Cat. X)[WO9743602]  
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**CT** - (US20020089324)  
US5444369 [US5444369] 324207200  
-US5528139 [US5528139]  
-US5789917 [US5789917]  
-US6137288 [US6137288]  
-JP2842482 [JP08842482]  
-JP2920179 [JP10920179]  
-JP2842482 [JP10842482]  
-JP2920179 [JP11920179]

**CT** - (JP2002206913)  
(A)  
[19] Citation as reason for refusal of an application  
- JP (A) 2000097606 [JP2000097606]  
- EP (A) 000798541 [EP-798541]  
- JP (A) 1996126380 [JP08126380]

**AB** - (EP1223409)  
A non-contact sensor for sensing a rotational position of a rotating object is provided. A ring-shaped permanent magnet (10) magnetized in the axial direction is sandwiched between two pairs of magnetic plates (11, 12, 13, 14) from above and below. Two pairs of upper and lower protruded magnetic substance portions (16, 17, 18, 19) are provided between the upper and lower magnetic plates (11, 12, 13, 14) at opposite outer ends thereof. Magnetic sensitive devices (21, 22) are inserted in air gaps between the two pairs of upper and lower protruded magnetic substance portions (16, 17, 18, 19). A magnetic flux generated from the ring-shaped permanent magnet (10) is substantially concentrated to the protruded magnetic substance portions (16, 17, 18, 19) and passes the magnetic sensitive devices (21, 22). The amount of magnetic flux passing each magnetic sensitive device (21, 22) is substantially proportional to the rotational angle of the ring-shaped permanent magnet (10). The rotational position of the ring-shaped permanent magnet (10) and hence the rotational position of a rotating shaft (15) supporting the ring-shaped permanent magnet (10) can be sensed in a non-contact manner as a signal output from the magnetic sensitive device. Since the magnetic flux is effectively concentrated to positions where magnetic sensitive devices (21, 22) are attached, a non-contact rotational position sensor having high accuracy and high sensitivity can be obtained.  
<IMAGE>

**OBJ** - (EP1223409)  
A non-contact sensor for sensing a rotational position of a rotating object is provided. The present invention relates to a rotational position sensor for detecting the rotational position of a rotating axis of a throttle valve used in an internal combustion engine, for example, and more particularly to a non-contact rotational position sensor. The present invention also relates to a throttle valve assembly including the non-contact rotational position sensor. Accordingly, it is an object of the present invention to provide a non-contact rotational position sensor which is able to operate with satisfactory performance even when confronting

surfaces of magnetic paths on the stator side and the rotor side are not shaped such that their lengths are even in a direction perpendicular to the rotor rotating direction.

**ICLM** - (EP1223409)

1. A non-contact rotational position sensor comprising:  
a permanent magnet (10; 10a) having a circular or arc-shaped outer circumference;  
a shaft (15) for supporting and fixing said permanent magnet;  
upper and lower magnetic plates (11, 12, 13, 14; 30) sandwiching said permanent magnet (10; 10a) from above and below, at least one of said upper and lower magnetic plates (11, 12, 13, 14; 30) being horizontally separated from each other with an air gap formed therebetween;  
at least one protruded magnetic substance portion (16, 17, 18, 19) disposed between said upper and lower magnetic plates (11, 12, 13, 14; 30); and  
a magnetic sensitive device (21, 22) disposed on a protruded surface of said protruded magnetic substance portion (16, 17, 18, 19),  
said permanent magnet (10; 10a) and said shaft (15) constituting a rotor which is rotatable relative to said upper and lower magnetic plates (11, 12, 13, 14; 30) vertically spaced from each other,  
said permanent magnet (10; 10a) being magnetized substantially in the direction of a rotating axis, whereby the amount of magnetic flux passing said magnetic sensitive device (21, 22) is varied with rotation of said permanent magnet (10; 10a).
8. A non-contact rotational position sensor comprising:  
a permanent magnet (10; 10a) having a circular or arc-shaped outer circumference;  
a shaft (15) for supporting and fixing said permanent magnet (10; 10a);  
magnetic plates (31) sandwiching said permanent magnet (10; 10a) from opposite outer sides in the radial direction;  
a magnetic circuit (31a, 31b, 31c) having a portion formed by narrowing part of each of said magnetic plates (31) for concentrating a magnetic flux generated from said permanent magnet (10; 10a);  
an air gap formed at a fore end of the magnetic flux concentrating portion of said magnetic circuit; and  
a magnetic sensitive device (21, 22) disposed in said air gap,  
said permanent magnet (10; 10a) and said shaft (15) constituting a rotor which is rotatable relative to said magnetic plates (31) arranged outwardly of said permanent magnet (10; 10a) in the radial direction,  
said permanent magnet (10; 10a) being magnetized substantially in the radial direction, whereby the amount of magnetic flux passing said magnetic sensitive device (21, 22) is varied with rotation of said permanent magnet (10; 10a).
13. A non-contact rotational position sensor comprising a permanent magnet (10; 10a) as a magnetic field generating source, a magnetic substance yoke (35) for forming a magnetic path, and a magnetic sensitive device (21, 22) for detecting a magnetic field, wherein a magnetic substance cover (45) is attached to a housing cover (40) of said non-contact rotational position sensor, or another dedicated cover is disposed on a housing cover (40) of said non-contact rotational position sensor and a magnetic substance cover (45) is attached to said dedicated cover, said magnetic substance cover (45) preventing any external magnetic substance situated near said non-contact rotational position sensor from affecting a magnetic flux density signal detected by said magnetic sensitive device (21, 22).
15. A non-contact rotational position sensor comprising:  
a rotating axis;  
an annular or semi-annular magnet (10; 10a) fixed to said rotating axis;  
magnetic substance assemblies arranged in opposing relation to sandwich said magnet (10; 10a) therebetween with a spacing greater than a thickness of said magnet (10; 10a) left between said magnetic substance assemblies in the axial direction of said rotating axis, such that a uniform air gap is formed between said magnet (10; 10a) and a surface of each of said magnetic substance assemblies confronting said magnet (10; 10a);  
a pair of small air gaps formed in said magnetic substance assemblies and being smaller than

said air gap; and  
a magnetic sensitive device (21, 22) disposed in said small air gap.

22. A throttle valve assembly comprising:

an annular or semi-annular magnet (10; 10a) attached to one end of a throttle valve (200);  
a resin cover (202) attached to a body (201) in which said throttle valve (200) is mounted;  
an auxiliary cover (40) attached to said resin cover (202);  
magnetic path forming members (11, 12, 13, 14) attached to said resin cover (202) and said auxiliary cover (40), respectively, and forming magnetic paths with said annular or semi-annular magnet (10; 10a) situated therebetween;  
a magnetic flux converging portion (16, 17, 18, 19) formed in each of said magnetic paths and concentrating a magnetic flux passing said magnetic path to a particular position; and  
a magnetic sensitive device (21, 22) attached to said magnetic flux converging portion (16, 17, 18, 19) and detecting change of the magnetic flux in said magnetic flux converging portion (16, 17, 18, 19) caused upon rotation of said throttle valve (200).

26. A non-contact rotational position sensor comprising:

a permanent magnet (10; 10a);  
a magnetic path member allowing a magnetic flux generated from said permanent magnet (10; 10a) to pass therethrough;  
a magnetic sensitive device (21, 22) disposed in said magnetic path and detecting change of the magnetic flux in said magnetic path caused upon relative rotation between said magnetic path member and said permanent magnet; and  
a slit formed in said magnetic path member for adjusting a nonlinear characteristic between change of the magnetic flux in said magnetic path and a rotational angle resulted from the relative rotation between said magnetic path member and said permanent magnet (10; 10a).

27. A non-contact rotational position sensor comprising:

a permanent magnet (10; 10a);  
a magnetic path member allowing a magnetic flux generated from said permanent magnet (10; 10a) to pass therethrough;  
a magnetic sensitive device (21, 22) disposed in said magnetic path and detecting change of the magnetic flux in said magnetic path caused upon relative rotation between said magnetic path member and said permanent magnet (10; 10a); and  
a magnetic resistance forming slit formed in said magnetic path member for converging the magnetic flux passing said magnetic path member to a position where said magnetic sensitive device (21, 22) is attached.

28. A non-contact rotational position sensor comprising:

a permanent magnet (10; 10a);  
a magnetic path member allowing a magnetic flux generated from said permanent magnet (10; 10a) to pass therethrough;  
a magnetic flux converging portion provided in said magnetic path member for converging the magnetic flux passing said magnetic path member to a particular position;  
a magnetic sensitive device (21, 22) disposed in said magnetic flux converging portion and detecting change of the magnetic flux in said magnetic path caused upon relative rotation between said magnetic path member and said permanent magnet (10; 10a); and  
a magnetic member for magnetic shielding arranged to surround said magnetic path member in a non-contact state with respect to said magnetic path member.

UP - 2002-29

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1/2 LGST - ©EPO

PN -  US2002089324 A1 20020711 [US20020089324]  
 US6559637 B2 20030506 [US6559637]

AP - US82032701 20010329 [2001US-0820327]

ACT - 20010712 US/AS-A

## ASSIGNMENT

OWNER: HITACHI, LTD. 6, KANDA SURUGADAI 4-CHOME, CHIYODA-  
ASSIGNMENT OF ASSIGNEES INTEREST;ASSIGNEES:MIYATA, KENJI;SHIMADA,  
SATOSHI;TAJIMA, FUMIO;AND OTHERS;REEL/FRAME:011981/0847;SIGNING  
DATES FROM 20010313 TO 20010319

20010712 US/AS-A

## ASSIGNMENT

OWNER: HITACHI CAR ENGINEERING CO., LTD. 2477, TAKABA HIT  
ASSIGNMENT OF ASSIGNEES INTEREST;ASSIGNEES:MIYATA, KENJI;SHIMADA,  
SATOSHI;TAJIMA, FUMIO;AND OTHERS;REEL/FRAME:011981/0847;SIGNING  
DATES FROM 20010313 TO 20010319

20010712 US/AS-A

## ASSIGNMENT

OWNER: HITACHI, LTD. 6, KANDA SURUGADAI 4-CHOME, CHIYODA-  
ASSIGNMENT OF ASSIGNEES INTEREST;ASSIGNEES:MIYATA,  
KENJI /AR;REEL/FRAME:011981/0847;SIGNING DATES FROM 20010313 TO 20010319

20041019 US/RF-A

REISSUE APPLICATION FILED

EFFECTIVE DATE: 20040310

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2/2 LGST - ©EPO

PN - EP1223409 A2 20020717 [EP1223409]  
 EP1223409 A3 20031119 [EP1223409]  
 EP1223409 B1 20071107 [EP1223409]

AP - EP01107716 20010330 [2001EP-0107716]

ACT - 20020717 EP/AX-A [+]  
EXTENSION OF THE EUROPEAN PATENT TO  
ERSTRECKUNG DES EUROPÄISCHEN PATENTS AUF  
AL;LT;LV;MK;RO;SI

20020717 EP/AK-A [+]

DESIGNATED CONTRACTING STATES:

BENANNTEN VERTRAGSSTAATEN

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

20031119 EP/AK-A [+]

DESIGNATED CONTRACTING STATES:

BENANNTEN VERTRAGSSTAATEN

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

20031119 EP/AX-A [+]

EXTENSION OF THE EUROPEAN PATENT TO  
ERSTRECKUNG DES EUROPÄISCHEN PATENTS AUF  
AL LT LV MK RO SI

20031119 EP/RIC1-A

CLASSIFICATION (CORRECTION)

KLASSIFIKATION (KORR.)

7 G01D-005/14 A

20031119 EP/RIC1-A  
CLASSIFICATION (CORRECTION)  
KLASSIFIKATION (KORR.)  
7 G01D-005/16 B

20040512 EP/17P-A [+]  
REQUEST FOR EXAMINATION FILED  
PRUEFUNGSANTRAG GESTELLT  
EFFECTIVE DATE: 20040310

20040623 EP/17Q-A [+]  
FIRST EXAMINATION REPORT  
ERSTER PRUEFUNGSBESCHEID  
EFFECTIVE DATE: 20040511

20040811 EP/AKX-A [+]  
PAYMENT OF DESIGNATION FEES  
ZAHLUNG VON BENENNUNGSGEBUEHREN  
DE FR GB IT

20070425 EP/RTI1-A  
TITLE (CORRECTION)  
TITEL (KORR.)  
THROTTLE VALVE ASSEMBLY INCLUDING MAGNETICALLY SHIELDED NON-  
CONTACT POSITION SENSOR

20071003 EP/RIN1-A  
INVENTOR (CORRECTION)  
ERFINDER (KORR.)  
MIYATA, KENJI,H

20071003 EP/RIN1-A  
INVENTOR (CORRECTION)  
ERFINDER (KORR.)  
SHIMADA, SATOSHI,H

20071003 EP/RIN1-A  
INVENTOR (CORRECTION)  
ERFINDER (KORR.)  
TAJIMA, FUMIO,H

20071003 EP/RIN1-A  
INVENTOR (CORRECTION)  
ERFINDER (KORR.)  
USUI, TOSHIKUMI,H

20071003 EP/RIN1-A  
INVENTOR (CORRECTION)  
ERFINDER (KORR.)  
KUBOTA, MASANORI

20071017 EP/RAP1-A

APPLICANT REASSIGNMENT (CORRECTION)  
ANMELDER UEBERTRAGUNG (KORR.)  
OWNER: HITACHI, LTD.

20071017 EP/RAP1-A  
APPLICANT REASSIGNMENT (CORRECTION)  
ANMELDER UEBERTRAGUNG (KORR.)  
OWNER: HITACHI CAR ENGINEERING CO., LTD.

20071107 EP/AK-A [+]  
DESIGNATED CONTRACTING STATES:  
BENANNTE VERTRAGSSTAATEN  
DE FR GB IT

20071107 EP/REG-A; GB/FG4D [+]  
GB: EUROPEAN PATENT GRANTED  
<GB>

20071220 EP/REF-A  
CORRESPONDS TO:  
ENTSPRICHT  
(DE 60131245 20071220 [DE60131245])

UP - 2007-51

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1/1 CRXX - ©CLAIMS/RRX

AN - 3873042  
PN - 6,559,637 A 20030506 [US6559637]  
PA - Hitachi Car Engineering Co Ltd JP; Hitachi Ltd JP  
PT - E (Electrical)  
ACT - 20040310 REISSUE REQUESTED  
ISSUE DATE OF O.G.: 20041019  
REISSUE REQUEST NUMBER: 10/797702  
EXAMINATION GROUP RESPONSIBLE FOR REISSUEPROCESS: 2834

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UACT - 2004-10-19

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Greater Bay Bancorp Reports Financial Results for the Second Quarter of 2007 Business Wire August 7, 2007 Tuesday 10:30 AM GMT

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August 7, 2007 Tuesday 10:30 AM GMT

**DISTRIBUTION:** Business Editors

**LENGTH:** 6528 words

**HEADLINE:** Greater Bay Bancorp Reports Financial Results for the Second Quarter of 2007

**DATELINE:** EAST PALO ALTO, Calif.

**BODY:**

Greater Bay Bancorp (Nasdaq:GBBK), a \$7.3 billion in assets financial services holding company, today announced results for the second quarter of 2007 and six months ended June 30, 2007.

For the second quarter of 2007, the Company's net income was \$17.5 million, or \$0.35 per diluted common share, compared to \$26.1 million, or \$0.47 per diluted common share, for the second quarter of 2006, and \$17.8 million, or \$0.31 per diluted common share, for the first quarter of 2007. For the first six months of 2007, net income was \$35.2 million, or \$0.66 per diluted common share, compared to \$52.3 million, or \$0.94 per diluted common share, for the first six months of 2006.

Operating results for the second quarter of 2007 included expenses of \$2.1 million (\$1.6 million after tax) for professional services associated with the Company's proposed merger with Wells Fargo & Company and a write-off of \$0.8 million (\$0.5 million after tax) in capitalized debt issuance costs for a debt offering that was cancelled due to the proposed merger.

On June 30, 2007, the Company redeemed its outstanding convertible Series B Preferred Stock with a carrying value of \$102.6 million for \$100.5 million. The \$2.0 million (after tax) excess of the carrying value over the redemption value did not affect reported net income for the second quarter or the first six months of 2007, but is included in net income available to common shareholders for purposes of calculating net income per share amounts for the second quarter and the first six months of 2007.

For the second quarter of 2007, the Company's return on average common equity, annualized, was 9.29% compared to 14.85% for the second quarter of 2006, and 9.65% for the first quarter of 2007. Return on average common equity, annualized, for the first six months of 2007 was 9.47% compared to 15.79% for the same period in 2006. Return on average assets, annualized, for the second quarter of 2007 was 0.96% compared to 1.47% for the second quarter of 2006, and 0.98% for the first quarter of 2007. Return on average assets, annualized, was 0.97% for the first six months of 2007 compared to 1.49% for the same period in 2006.

#### Net Interest Income and Margin

Net interest income for the second quarter of 2007 decreased to \$59.5 million from \$65.8 million in the second quarter of 2006, and from \$59.9 million in the first quarter of 2007.

The net interest margin (on a fully tax-equivalent basis) for the second quarter of 2007 was 3.71%,

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